

WO 03/076986 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/IB 03/00470

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G02B6/00 G02B6/35 G02B6/26		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 G02B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 771 321 A (STERN ERNEST) 23 June 1998 (1998-06-23) column 1, line 65 - column 4, line 14 column 5, line 54 - column 7, line 49 column 12, line 26 - line 65 column 20, line 52 - column 22, line 5 figures 1,2,4C,4D,9,12A,12B	1,8,9
X	US 5 953 469 A (ZHOU XIAOCHUAN) 14 September 1999 (1999-09-14) column 1, line 1 - column 8, line 16 column 12, line 26 - line 67 figures 1-3,9A,9B	1
Y	column 12, line 26 - line 36	2-7
Y		8,9
	-/-	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 19 May 2003		Date of mailing of the international search report 03/06/2003
Name and mailing address of the ISA European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016		Authorized officer Arsac England, S

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PCT/IB 03/00470

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 092 904 A (TAI CHEN-YU ET AL) 25 July 2000 (2000-07-25) column 1 -column 5 figures 1A,2,8 column 8, line 48 - line 61 ---	2-5
Y	US 6 044 196 A (GLECKMAN PHILIP ET AL) 28 March 2000 (2000-03-28) column 19, line 44 - line 55; figure 6A ---	3-5
Y	US 5 917 664 A (COBB JR SANFORD ET AL) 29 June 1999 (1999-06-29) cited in the application column 1, line 1 - line 37 column 3, line 43 -column 4, line 6; figure 7 ---	6,7
Y	WO 00 38163 A (KONINKLIJKE PHILIPS ELECTRONICS N.V.) 29 June 2000 (2000-06-29) cited in the application the whole document -----	8,9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 03/00470

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1,2

Independent claim 1 claims a display device comprising a light guide using mechanical light switches to couple light out, and means for collimating light between the light source and the light guide.

Claim 2 is dependent on claim 1.
The collimating means comprises a wedge-shaped bar.

2. Claims: 3-7

Claims 3-7 are dependent on claim 1.
The collimating means comprises an optically transparent plate whose surface is provided with a structure (eg. multiple linear prisms) for enhancing on-axis brightness.

3. Claims: 8,9

Claims 8 and 9 are dependent on claim 1.
They claim means for selecting the mechanical light switch consisting of row and column electrodes.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 03/00470

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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US 6092904	A	25-07-2000	US 5671994 A WO 9534009 A1 US 5860722 A	30-09-1997 14-12-1995 19-01-1999
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